Health system strengthening in LMICs and fragile states – what and how?

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Overview

- What is a health system?
- What is a strong health system?
- What do we know about effective HSS interventions?
- Lessons for external engagement

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PERSPECTIVE

Health system strengthening—Reflections on its meaning, assessment, and our state of knowledge

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Summary

Comprehensive reviews of health system str
(HSS) interventions are rare, partly because of lac
on definitions of the term but also the potentially
of the evidence. We reflect on the process of u
such an evidence review recently, drawing out s
on definitions of HSS and approaches to assessm
as summarising some key conclusions from the c
dence base. The key elements of a clear definiti

Learning health systems in low and middle income countries: background paper for AHPSR, 2019, Witter & Jensen

ePact
Strengthening evaluation effectiveness and impact

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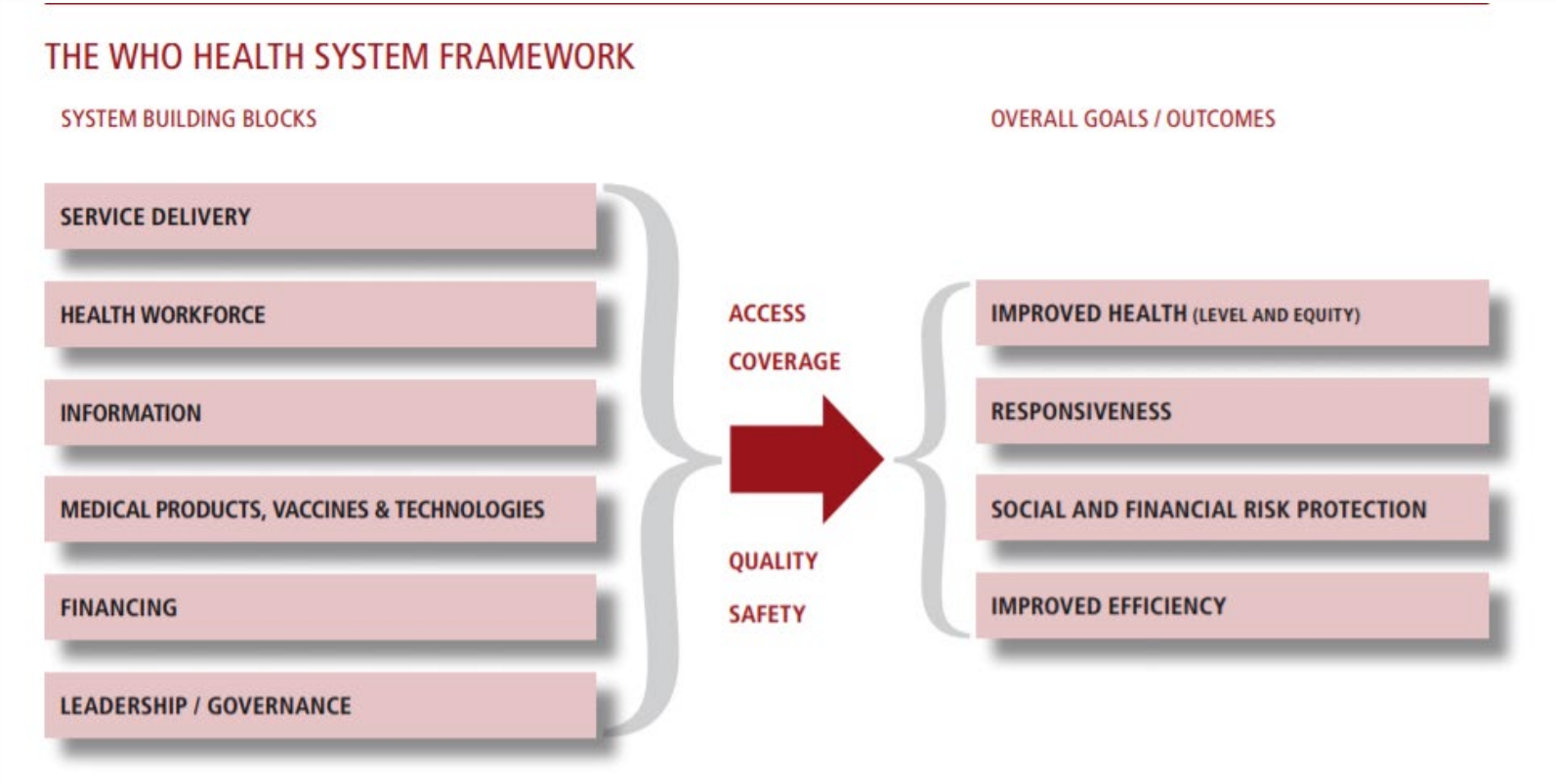
Evaluation of DFID's Approach to Making Country Health Systems Stronger (MCHSS)

ERA2 Literature Review Report

What is a health system?

- all the activities whose primary purpose is to promote, restore and/or maintain health (WHO)
- complex, adaptive and social institutions



Health Systems Strengthening Framework.

Health system inputs	Mechanisms of change	Health system process goals	Health system outputs, outcomes, impact
Governance, structures, financing, infrastructure, workforce, supply chain, information	For example, training & skills building, changed incentives, social dialogue, exposure to new ideas, organisational culture change, new administrative procedures (e.g. governance or financing processes), structural reforms – singly or in combination	Development of system, services and infrastructure reflects national priorities and equity goals Resources (funds, supplies, information etc.) flow in timely and adequate way to frontline providers, who have flexibility to manage them according to local needs Distributed and transformative leadership is developed Information systems are adapted to local needs and user-friendly Information is reviewed and fed back into decisions – active learning cycle Teamwork and collaboration are supported A culture of service, desire for excellence, care and solidarity is developed Capacity is built (at individual, organisational and system levels) Staff are deployed where needed, with right skills and attitudes There is mutual accountability upwards and outwards, including rewards for performance (and sanctions for non-performance) Risks are pooled across wider population, focusing first on vulnerable populations Package of services available to population is expanded, with priority given to most cost-effective and equitable ones Services are integrated and delivered at most appropriate level, with continuity of care and appropriate referrals Communities are engaged to ensure responsiveness and manage own health needs effectively Health system prioritises prevention and works effectively with other sectors to promote this	Quality, safe services available and accessible Responsiveness Efficiency High coverage of interventions Reduced risk prevalence Improved health outcomes and equity Social and financial risk protection

What is HSS? Definitional challenges

- History: emerging from debate about vertical programme
- Proposals but lack of consensus
  - “any array of initiatives that improves one or more of the functions of the health systems and that leads to better health through improvements in access, coverage, quality or efficiency” (WHO, 2019 glossary)
  - Adam and De Savigny (2012) highlight that, to be considered HSS, an intervention needs to have system-level changes as opposed to changes at the organisational level.
  - Chee et al. (2012): 1) The interventions have cross cutting benefits beyond a single disease; 2) They address identified policy and organisational constraints or strengthen relationships between the building blocks; 3) They produce long term systemic impact beyond the life of the activity; and 4) They are tailored to country specific constraints and opportunities with clearly defined roles for country institutions

Our suggestion on HSS definition

(1) **scope**: should have effects cutting across building blocks in practice, even if not in intervention design, and also tackling more than one disease

(2) **scale**: should have national reach and cut across more than one level of the system

(3) **sustainability**: effects should be sustained over time and address systemic blockages

(4) **effects**: should impact on outcomes, equity, financial risk protection and responsiveness, even though these impacts may occur after a time lag

Issues with HSS evidence base

- Not many reviews of HSS, perhaps because of scale of literature and lack of clarity on boundaries
- None starting from clear typologies of interventions
- Lack of HSS evaluation frameworks
- Studies often have narrow focus on outcomes in their block, so verticalise
- The overall literature is highly skewed towards:
  - Better funded areas, with more external support and interest
  - 'New' initiatives
  - Areas which are more policy-oriented than practice (hence HIS and PSM less covered?)
  - Simple interventions
  - Project-based and short-term, more than organic national reforms, followed over longer time-frames
- All of this means that lack of robust evidence is no indication of lack of effect

Summary on HSS effectiveness – (1) governance

- Ours highlights areas with stronger evidence and overall the **importance of HSS (and opportunity costs of not doing so**)
- There is an increasing body of evidence that suggests that **governance-specific interventions**, including civil participation and engaging community members with health service structures and processes, can lead to tangible health improvements, as well as improved service uptake and quality of care
  - Capacity development and mentoring is particularly important to enable this process
  - Context here is critical, e.g. government acceptance of shifting authority to community organisations or shared societal values
- Given its catalytic role, **governance should be mainstreamed** in all HSS investments
- **Whole-system governance** approaches can also be effective. These involve:
  - political elites invested in change and taking into account windows of opportunity, a national plan, comprehensive and coherent reform programmes addressing multiple building blocks over significant periods of time and allowing for lesson learning, and policy adaptation to changing the environment.

Effectiveness (2) – input blocks

- The human resources field has a well-developed menu of prioritised actions, which emphasise the importance of HR goals not only for health systems and health but also the wider economy., including studies linking **health workforce density with health outcomes** (Castillo-Laborde, 2011).
  - More macro interventions – for example, the effectiveness of creation of HRH observatories, of HRH strategies, or approaches to strengthening HR information systems – are under-evaluated.
- HF – evidence base for many reforms but important to **go beyond labels** to whether the design furthers principles of good HF in that context
- There is a **limited evidence base on the impact of investments in HIS and PSM** on long-range health outcomes or intermediary health indicators. However, there is increasing interest in this area

Service delivery topic	Service access & coverage	Service quality & responsiveness	Improved health	Equity of outcomes	Financial equity & risk protection	Cost-effectiveness	Key references	Overall comments on field, including important spillover effects and contextual factors
Strengthening services at the community level	+	+	+			+	Hatt et al., 2015 Schiffman et al., 2010 Mbuagbaw et al., 2015	Wide range of interventional packages.
iCCM	+	+	0			+	Guenther, 2017 Kalyango, 2013 Daviaud, 2017	Intervention includes strengthening supervision of frontline workers and ensuring reliable supply of medicines. Success dependent on support, workload, feedback and drug supply.
PHC	+		+				Geissler et al, 20156 McPake et al, 2015	Successful programmes use CHWs with regular contact with all households, collaborations with communities, strong referral capabilities and provision of first-level hospital care.
IMCI	Mixed evidence	+	+			+	Gera et al, 2016	Results depend on the quality of training and provision of systematic supervision or feedback.
Integration of HIV services	+	+	+			+	Lindegren et al Sweeney, 2012	No effects if affected by staff absences and irregular supply of essential commodities. Links to wider health system interventions such as training workers, strengthening laboratories, harmonising patient flows and improving infrastructure.
Mother and child health integration	+		+				Rahman, 2012 de Jongh et al., 2016 Macinko et al., 2006	Most effective interventions included training, and demand generation components.
Other integration studies	+	+	+	+		+	Le et al., 2016	Integration enhances well established systems rather than fundamentally changing care outcomes.
Quality	+ low	+ low certainty	+ low				Peters et al., 2009	Transferability of strategies limited.

Effectiveness – (3) Service delivery interventions

- There is reasonable evidence that **multi-component interventions**, and notably those whose constituent components reinforce each other, are associated with higher effectiveness.
  - This is particularly evidenced in the case of **comprehensive service integration** where, when the aim is to improve the whole continuum of care delivery - including services redesign, demand generation and quality improvement through supervision, data management and pre-service training - integration is more likely to lead to positive health outcomes, service utilisation and sustainability.
- When the intervention is designed predominately as a means to **increase uptake of a specific and often siloed service** (e.g. HIV uptake), without investment in broader health systems components (e.g. governance and training), impact is more limited or unknown.
- Similarly, so called "**package" interventions** (e.g. IMCI) often have an effect on increasing uptake but evidence on health outcomes was mixed.
- The role of **community engagement** in the design and implementation of the interventions also came out from the review as an ingredient of higher effectiveness of interventions reviewed.
  - Briggs et al, 2006 note in their review, the vast majority of integration efforts focus on the supply side, with little consideration for the demand

Factors highlighted across the studies which are likely to increase HSS success

- political commitment to a process
- shared societal values
- taking advantage of windows of opportunity
- sustained commitment
- coherent reform programmes
- quality of implementation
- iterative learning and adaptation
- community engagement in the design and implementation of the interventions
- individual and organisational capacity development and mentoring

This suggests that the **implementation process** might be as important as the specifics of intervention design in HSS

System strengthening entails concern for how a specific intervention is **adapted to and institutionalised within the existing system**, not only to ensure its long term sustainability but also to support, rather than undermine, system resilience

Hence importance of paying attention to **system software and history**

Mechanism	Frequency
Introducing new systems	14
Training	14
Developing products & tools	11
Conducting analysis or assessments	10
Financial support	10
Conducting studies or pilots	9
Developing policies, plans or strategies	9
Engaging stakeholders	9
Introducing or Improving processes	9
Advocacy	8
Coaching or mentoring	7
Developing guidelines	6
Establishing institutions and organisations	5
Providing inputs	5
Restructuring, reforming, repurposing, strengthening, organisations or institutions	4
(Supportive) supervision	4
Policy dialogue	3
Resource mobilisation	3
Establishing legal and institutional frameworks	2
Monitoring performance	2
Problem-solving or trouble-shooting	2
Providing information or advice	1
Strengthening relationships within or between organisations	1

2019 MCHSS lit review for DFID. Overall question: **what approaches have donor-funded interventions aimed at strengthening health systems used? Have these approaches been effective or ineffective, and why?**

- The review identified 23 different approaches or 'mechanisms of change' (inductively coded by researchers) that donors have employed
- The programmes described by the included studies used 1 - 14 of the mechanisms of change listed here to strengthen country health systems
- The average number of mechanisms employed was six
- As bundled, hard to attribute impact to individual mechanisms, even where study design allows for overall impact assessment

Health system process goals identified as having been achieved (in order of frequency)

Health system process goal	Frequency
Infrastructure	20
Staff deployment	20
Capacity-building	19
Active Learning Cycle	11
Resources	10
Information Systems	10
Teamwork & Collaboration	10
Engaged communities	8
Mutual accountability	7
Leadership	6
Integrated and appropriate service delivery	5
Expanded package of services	4
Culture	3
Pooled risks	1
Prioritising prevention	0

Intervention implementation and design factors

Favourable

- ownership by key country stakeholders
- buy-in from health ministries or health sector coordination structures
- alignment with national plans, national reporting systems and ongoing country activities
- consistent, in-country programme staff

Unfavourable

- Contextual factors such as shortages of health workers and other skilled staff, poorly funded health systems and political uncertainty

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